

REMARKS

The subject application claims priority from an Austrian application under 35 USC §119(b). Such claim has been properly made. The examiner has objected to the priority for the reason that the priority document "has even pages only". Applicant submitted a certified copy of the priority document and it is highly unlikely that such certified copy omitted the odd numbered pages. Applicant suspects that the certified copy may have been incompletely scanned within the USPTO for electronic access by the examiner. Applicant previously requested that if the ribbon original of the certified copy only contains even numbered pages, the examiner return the original to the undersigned so that a credit and correct replacement can be obtained from the Austrian Patent Office.

Not having received the allegedly defective Certified Copy from the examiner, Applicant encloses herewith a Certification Declaration from Frederich Schweinzer, along with a copy of his copy of a Certified Austrian Application A1552/2002 dated October 14, 2002. All odd and even numbered pages are contained in this enclosure. Given (1) the position, knowledge, and practice of Mr. Schweinzer, (2) his interest for his employer that a valid patent be obtained, (3) the close scrutiny his Declaration would be subjected to in the event of an inter- parties dispute, and (4) that if necessary in connection with, e.g., such dispute, a certified copy can ultimately be obtained upon payment to the Austrian Patent Office, Mr. Schweinzer's Certification Declaration is extremely reliable, and thus should be accepted by the examiner.

The examiner requires that the specification contain a cross-reference to related applications. Notwithstanding that there is no related U.S. application, and a claim to priority under 35 USC §119(b) is not required to be contained in the specification under a cross reference to related application, applicant has for the sake of expediency, directed that the specification be amended accordingly.

The examiner finally rejected all pending claims 1-5, 7-13, and 16-20, only under 35 USC §103 based on the disclosures of the patent to Fleissner in view of the patent to Luthi.

Independent Claim 1 recites in pertinent part, that adjacent each end of the cylinder (1) the longitudinal ribs are welded to an axially outermost radial bearing ring (2) without connection to the cylinder, and (3) without connection of the outermost radial bearing ring to the cylinder.

Independent Claim 11 recites in pertinent part, that (a) the longitudinal ribs are rigidly connected to the radial bearing rings, (b) forming a multiplicity of pockets around the perforated cylinder, and (c) the bearing rings closest to the axial ends of the cylinder are rigidly connected to the longitudinal ribs, but (d) not rigidly connected to the cylinder.

The examiner sets forth his understanding of Fleissner at the top of page 3 of the Official Action. Applicant does not dispute the examiner's description of the disclosure of Fleissner. Moreover, the examiner concedes that Fleissner does not disclose the method of attachment or connection of the ribs to the cylinder. Furthermore, Fleissner does not disclose the method of attachment of the ribs to the end faces of the drum, nor disclose any intermediate structure such as applicant's flange 26, between the cylinder and the end face. There is no structure in Fleissner, corresponding to applicant's radial bearing rings (21). With applicant's constructions (Figure 6) rectangular pockets are formed, whereas with Fleissner, the longitudinally extending ribs (10) are connected together by an integral web portion (14), which Fleissner calls a flange. In essence, the grid or support structure of sheet metal strips according to Figures 2-4 is entirely bolted to the perforated cylinder, without disclosure of any type of connection to the end faces of the drum.

Without any nexus in the record, the examiner makes a conclusory statement to the effect that, since Luthi shows one technique for connecting the shell to the end faces or structure associated with the end faces, any technique for making such connection would be obvious.

This position is untenable. Applicant is not claiming the broad concept of providing a rigid connection between a shell and an end face of a drying drum. Applicant acknowledges that this has been a common construction in a drying drum for years, but that certain problems have arisen from that. Applicant has not only identified these problems but has disclosed and claimed a novel and non-obvious technique for making this connection in a way that overcomes the problems. Neither the problem nor any solution are taught, suggested, or even hinted at, in the references applied by the examiner.

Luthi discloses a variation of the rigid connection that has caused problems in the prior art. The wavy strips 20, 22 of Luthi are welded at the converging corners, at 24. The overall cylinder has portions 12 near the axial ends, where the wavy grid is not covered by the helical strips 14. As described in column 3 beginning at line 53 (in connection with Figures 3 and 5), the support rings 28 at the ends of the drum include a radially extending wall 32 to which the end coil of the respective, adjacent end portion 12 of the grid is affixed, preferably by welding at 24. It is clear that the wavy grid is simply butt welded to the upstanding wall face 32 of support ring structure 28. The weld connection at 32 transmits all of the torque to the drive shaft to the cylinder and bears all and must accommodate any thermal expansion or differential temperature or heat transfer conditions that give rise to the problem solved by applicant. In this vicinity, there is no structure corresponding to applicant's axially elongated ribs, and distinct radial bearing rings, inasmuch as the grid-like structure of Luthi is integrally formed from side by side wavy strips. Given that Fleissner does not disclose any technique for connecting the cylinder or strips 10 to an end face or structure associated therewith, the only reasonable conclusion one could draw regarding Luthi, is that some portion of the cylinder and/or strips must be attached to the end faces.

Given the emphasis in Fleissner of the bolted connections, a reasonable conclusion would be that any further connection to the end faces would be by means of flanges and bolts. There is nothing in either reference suggesting selective attachment to the end face or structure associated therewith, in a way that accommodates

differential expansion and similar stresses, in the manner of applicant's claimed invention.

More particularly, Fleissner shows only longitudinal ribs, without any radial or even spiral ribs. Luthi shows only wavy strip metal (16, 26), without longitudinal or radial ribs. (See column 2 line 66 and column 3 line 33). There is no nexus to combine the disclosures, and even if combined, there is no resulting combination that would point towards applicant's claims. Furthermore, the claims specify a particular relationship between the radial ribs and the cylinder at the ends of the cylinder, which is not taught or suggested by either reference. This special relationship is not merely an arbitrary design choice, but is a clever and effective way of solving a significant problem of the stresses caused by temperature variations between the central and end portions of the shell that sometimes occur during dryer use. (See page 2 line 20, and the discussion starting on page 6 line 1 associated with Figure 5b).

Applicant's claim 1 is very clear as to the distinguishing structural relationships. Neither Fleissner nor Luthi discloses (1) longitudinal ribs connected to radial bearing rings, including welding to the axially outermost radial bearing ring, (2) without connection of the longitudinal rib to the cylinder where welded to the axially outermost radial bearing ring, and (3) without connection of the outermost radial bearing ring to the cylinder. Neither this arrangement of structures nor attachment techniques can in any way be derived from the cited references.

With respect to independent claim 11, similarly, neither of the patents applied against the claims shows (a) the longitudinal ribs rigidly connected to the radial bearing rings, (b) forming a multiplicity of pockets around the perforated cylinder, and (c) the bearing rings closest to the axial ends of the cylinder being rigidly connected to the longitudinal ribs, but (d) not rigidly connected to the cylinder.

In addition to the point that neither Fleissner nor Luthi shows a grid having pockets connected to a perforated cylinder, neither teaches, suggests, nor hints at the claimed technique of how the components of the grid structure are connected together at the axial ends of the drum.

Applicant's specific connection, i.e., that the ribs at the ends are welded to the outermost bearing without being welded to the cylinder, is both novel and non-obvious, and enables the manufacture of a drying cylinder which encounters no crack problems at the connection due to temperature stresses. Applicant is not merely claiming a welded connection of components of the drying drum, rather, applicant is claiming a specific way of connecting these components at the axial ends. This kind of thermal stress is avoided by the special design of the subject invention, where the outermost radial bearing ring is not connected to the cylinder. As neither cited reference shows radial bearing rings or the formation of pockets with axial ribs, they have little in common with each other or applicant's invention.

The prior art does not even incidentally show or point to the combination of features claimed by applicant, and there is no suggestion in the cited references that any modification of the connection of the ribs to the cylinder at the axial ends of the cylinder can solve the problem solved by applicant with the claims now presented for reconsideration.

For the foregoing reasons, applicant requests reconsideration and allowance of all claims.

Respectfully submitted,

Franz Halder et al



L. James Ristas
Registration No. 28,663
Alix, Yale & Ristas, LLP
Attorney for Applicant

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750 Main Street
Hartford, CT 06103-2721
Our Ref: ANDPAT/177/US
LJR/ds

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